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NAVAL WAR COLLEGE  
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# OPERATIONAL LEADERSHIP IN AIR WARFARE:

A Study of the Battle of Britain and Operation Desert Storm

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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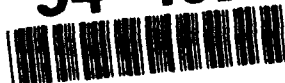
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**Abstract of  
OPERATIONAL LEADERSHIP IN AIR WARFARE**

The essence of operational leadership is its function as the bridge between the strategic, the operational and the tactical levels of war. In accomplishing this, the most critical aspects a leader must concern himself with are the preparation of the command, and communicating effectively with superiors and subordinates alike. This paper will look at two case studies, the Battle of Britain and the air campaign of Operation Desert Storm, and will discuss the strengths and weaknesses in operational leadership as exhibited by the victorious leaders, Air Chief Marshall Hugh Dowding and General Charles A. Horner. As their triumphs and failures will show, the proper exercise of operational leadership is not necessarily validated by victory alone.

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## PREFACE

My purpose in writing this paper is not to attempt to dictate the steps required for successful operational leadership. That task is far beyond the experience level of a junior officer, and may be impossible due to the enigmatic qualities of the subject. My intent is to illustrate some constants that influence the effectiveness of operational leadership, thus giving future operational commanders a possible base line from which to fashion their own leadership styles. These constants are not limited to the operational level of leadership. The consideration of these factors could prove valuable at any leadership level.

I would like to acknowledge several individuals for taking the time to assist me in the completion of this project. My sincere thanks to Sebastian Cox, Deputy Head of the Air Historical Branch of the British Ministry of Defense, for sharing his insights on the Battle of Britain during our correspondence and subsequent interview here in Newport. My thanks also to Michael Handell of the Strategy and Policy Department for arranging for me to meet with Mr. Cox. In researching Operation Desert Storm, special appreciation goes to RADM Michael Bowman, my Air Wing Commander aboard USS America during the Gulf War, for taking the time to discuss the tactical commander's view of operational leadership, to RADM Lyle "Ho-Chi" Bien for directing me to those in-the-know about the operations in Riyadh, to CDR Donald "Duck" McSwain for taking the time to discuss his

experiences in the "Black Hole", and to Lt. Col. Robert "Skip" Duncan for providing me his insights on the functions and problems he observed while working in the JFACC organization during the war. Their unique contributions helped me to really understand a campaign in which I participated and thought I understood.

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## CHAPTER I: INTRODUCTION

As Clausewitz theorized, the discipline of war is an art rather than a science.<sup>1</sup> The application of this art form extends to all levels of war; strategic, tactical and operational. The art of operations encompasses many varied aspects, but perhaps the most vital, and the least understood, is "operational leadership". The term was first coined by the Germans in the nineteenth century. Their writings on the subject are extensive and yet a precise definition for operational leadership does not exist. In the writings of the United States military the subject has remained virtually untouched. Perhaps it is assumed that our military leaders have a thorough knowledge of the subject, that superior operational leadership is something intuitive an experienced leader is supposed to have developed during his years of operational practice. As our nation's Armed Services rapidly develop into a truly joint force, a force dependant on advanced technology and specialization, an understanding of operational leadership and mastery of its fundamentals will become increasingly important to the success of the United States in armed conflict.

Within a command, the reach of operational leadership can span several levels and under its title fall a wide range of subheadings. This discussion will explore two of the most important aspects: preparing the forces in the command for potential or impending battle, and acting as a bridge between



the strategic and the tactical levels of decision making. Of these, the former will have the greatest impact on the ultimate success of the operation, while the latter will have the greatest influence on the unity and effectiveness of the command during combat. It will also have a lasting effect on how the commander and his skills as a leader will be viewed by history.

In order to gain a greater understanding of the gravity of, and the difficulties in mastering, these unique responsibilities of operational leadership, we will examine two case studies; the Battle of Britain and the air campaign of Desert Storm. The fifty years that separate these two decisive air wars represents half of the history of aviation. The time period between the conflicts delivered incredible leaps in technology and changes in warfare, yet the leadership problems faced by the commanders were amazingly similar. The conflicts had two important factors in common: (1) They both incorporated new doctrine in air warfare, and (2) The personalities of the leaders, and personality conflicts within the chain of command, played a major role in the application of operational leadership. We will examine how the leaders managed their situations and consider factors that may face our military leaders in future conflicts.

## CHAPTER II: Operational Leadership and its Functions

A vital key to victory in war is the mastery of the operational art, yet this mastery by itself can not ensure victory. Superior operations must be directly tied to a superior strategy, and then direct the application of tactics in the field. This is the essence of operational leadership, the ". . . interface between policy and the military strategy on the one hand, and tactics on the other."<sup>2</sup> As with all aspects of the operational art, where the strategic and tactical levels end and the operational level begins is very vague, thus the influence of operational leadership can be felt as high as the national policy makers, all the way down to the man in the cockpit.

The functions of operational leadership are normally thought to be vested in one person, the operational commander. This was the case during the Battle of Britain, when the Air Officer Commanding-in-Chief of the Royal Air Force's Fighter Command, Air Chief Marshall Hugh Dowding, was charged with all the responsibilities of operational leadership. In today's war fighting arenas, this person could be Commander in Chief of the Unified Command assigned the area of responsibility (AOR) in which the conflict takes place, and the CINC need not be in the theater of operations when exercising his authority. If he is not, the responsibilities of operational leadership may fall upon the shoulders of a Joint Task Force (JTF) Commander of the CINC's choosing who is close to the action.

**OPERATIONAL LEADER** "Operational leadership is not in itself tied up to a certain command echelon"<sup>3</sup> The operational commander may choose to delegate all or part of his operational leadership responsibilities to one (or more) of his subordinates. Therefore it might be beneficial to distinguish that officer responsible for the functions of operational leadership as the "operational leader". During Operation Desert Storm, the operational commander, General H. Norman Schwarzkopf, designated General Charles A. Horner as the operational leader of the air campaign and delegated to him virtually all of the operational leadership burdens for that phase of the war. Schwarzkopf retained for himself the leadership role as bridge between the operational levels of his command and the policy makers of the Allied Coalition. Given the complexities of modern warfare and the joint military organization, the delegation of operational leadership is likely to be the norm rather than the exception in future operations.

**RESPONSIBILITIES** The concept of operational leadership encompasses many elements and responsibilities. Chief among these are preparation for battle, communications, and cultivating relationships within the chain of command. Preparation for battle involves such aspects as marshalling national and military resources vital to the command's success in battle, establishing an effective command organization from

which to control the battle, and overseeing operational planning and the training of war fighting components.

The interface between the highest levels of command authority is generally a responsibility the operational commander reserves for himself. How well he performs this function depends on effective communication. Once the operational commander ensures that national strategy is achievable through military means and translates the strategic goals into military objectives, he must then be able to clearly convey his military objectives to his subordinates in order to maintain unity of effort. If the subordinate commanders feel the military objectives are unattainable or present too high of a risk, they must inform operational commander of these opinions. The operational commander may then either modify the mission or recommend a change in strategy to the policy makers. Should differences of opinion arise among the tactical commanders on how to best accomplish the mission, the operational commander must stay informed in order to settle potential conflicts and maintain unity of command.

The success of the operational leadership in acting as the link between strategy and tactics depends in large part upon the ability to forge strong, trusting relations with superiors and subordinates alike. The level of trust an operational leader establishes with his superiors will be a key factor in his commander's ability to successfully attain

the assets he feels are necessary to win in combat. This trust is gained by keeping his superiors informed and by having the ". . . skills to think and master the art of diplomacy."<sup>4</sup> The cultivation of successful relationships with subordinates is, in many cases, a by-product of effective communications. Poor communications between the operational leader and his tactical commanders may result in the misunderstanding of the leader's strategic guidance or conflicts within the command over the way to properly execute that strategy. It is in the communication of vision and the resolution of dissension where the operational leader's skills may be most severely tested.

### CHAPTER III: Battle of Britain

The German Luftwaffe's campaign to defeat Britain's Royal Air Force in World War II, commonly referred to as the Battle of Britain, was ". . . strategically the most fateful of the whole war . . . ."<sup>5</sup> The Battle was to be the opening act for the German invasion of Great Britain, Operation Sealion. For the RAF, the battle commenced on July 10, 1940 and went through three phases before the recognized conclusion on October 12. During the first phase the Germans flew attacks mainly against coastal and naval targets. During the second, and most intense phase, attacks were directed at RAF aerodromes and aircraft production facilities in an effort to destroy Britain's fighters on the ground, or lure them into

the air in great numbers and shoot them down with their own fighter escorts. During the third phase, the raids shifted from military targets to an all-out attack on London and other major population centers.

The officer charged with defending Britain against the might of the Luftwaffe, the operational commander, was Air Chief Marshall Hugh Dowding, Air Officer Commanding-in-Chief of Fighter Command. When Dowding took his place as the first Commander of Fighter Command on 14 July 1936, ". . . the British air defenses had . . . a chief whose practical experience as an air commander went back to the Somme, and whose character and seniority enabled him to take a strong line in [what were to be] his frequent clashes with authority."<sup>6</sup> His seniority also proved to be an underlying problem that effected his functioning as an operational leader. At the time of his selection as C-in-C Fighter Command, Dowding was the ranking officer in the RAF. He had been an Air Officer (the U.S. equivalent of a Flag or General Officer) for over half of his 36 years of service. Since his days as a squadron commander in World War I, he had served in such positions as Chief Staff Officer in Iraq, and of special note, as Air Member for Supply and Research on Britain's Air Council. In 1936 he was one of the front runners for the position of Chief of Air Staff, the highest office in the RAF, an office for which he felt he was totally qualified and deserving. However he was passed up for the position in favor

of an Air Officer junior to him, ACM Cyril Newall. His seniority and time away from the tactical levels of the RAF were to cause friction in his dealings with the Air Staff and his subordinate commanders.

**PREPARATION** Upon his selection to head Fighter Command, Dowding vigorously set out to prepare the command for battle. He was the man ". . . who laid the foundations and whose foresight and firmness preserved the fighter force from disintegration even before the battle started."<sup>7</sup> He was instrumental in the rapid development and deployment of the new RDF (radio direction finding) system, later to be known as radar, a technological development that was the difference between victory and defeat for Britain. He also zealously worked with Air Council toward the rapid development, and the mass production, of modern aircraft to replace Britain's antiquated fighter force. Born of this combined effort were the Hurricane and the Spitfire, the two aircraft that further tipped the balance in favor of the RAF.

Dowding's foresight went beyond advances in technology. He realized that the advantages these systems provided were still inadequate to defend against tremendous numbers of German aircraft, launched against Britain from bases in France, Belgium, Denmark and Norway. He determined a new air defense strategy was necessary, one based on conservation of forces.

"Dowding's task was, [as he saw it] twofold: (1) To prevent the destruction of his forces, and (2) In the process, inflict the maximum of destruction on the enemy air forces. To achieve the second only was not in itself sufficient; he must also ensure that Fighter Command remained strong enough to influence events should an invasion be launched."<sup>8</sup> Thus Dowding established a new doctrine for defensive air warfare, founded on these tenants, and built around the unproven capabilities of radar and Britain's new fighters. The doctrine revolved around a system of air defense sectors. (These sectors are depicted in figure 1 on the following page.) Each sector was defended by an Air Group and relied on an intricate network of radar stations and forward observers for early warning of incoming raids. Once a raid was detected, the sector control centers would coordinate the rapid launch of fighters and then direct the aircraft toward interception of the raiders. Thus Dowding had established an operational doctrine by which he could achieve his strategic goals, and put into place the command and control mechanisms needed for the implementation of his doctrine.

In order to effect his strategy of conservation, Dowding dispersed his forces equitably amongst the Fighter Groups. This provided him the opportunity to maintain a fresh force by rotating squadrons in and out of the heaviest fighting (a practice he never fully implemented), and maintained a ready reserve of forces. The Luftwaffe flew the vast majority of



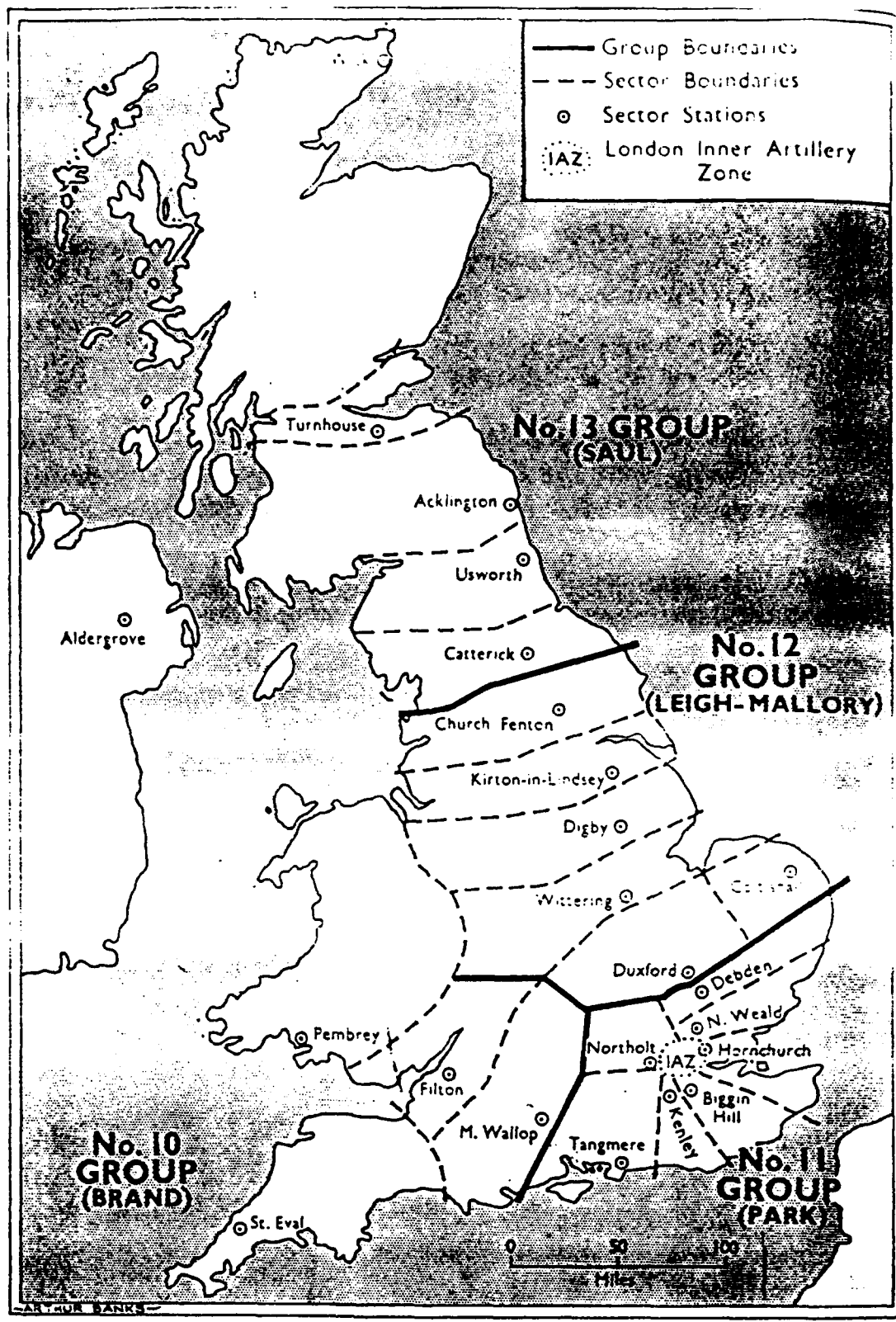


Figure 1: The Organization of the RAF Fighter Command during the Battle of Britain, 1940'

their raids from bases in France against targets in England's southwestern region, thus most of the fighting took place in the No. 11 Group's sector. This relegated the men of No.10 and No.12 Groups to the mission of supporting No. 11 Group when, and if, 11 Group was overwhelmed.

**COMMUNICATION** Dowding failed, however, to adequately communicate his strategy and doctrine to his Group Commanders prior to the beginning of the Battle, consequently friction developed between his subordinates. The conflict was most acute between The No. 11 and No. 12 Group Commanders, Air Vice Marshalls Keith Park and Trafford Leigh-Mallory. While Park followed the new doctrine to the letter, launching his fighters in small formations in order to intercept the German bombers before they reached their targets, Leigh-Mallory disagreed totally with the new strategy. By being based farther north with more time to react, he felt his Group was better suited to tactics being tried by one of his squadron commanders, Squadron Leader Douglas Bader. The tactic involved launching as many squadrons of fighters as possible from different bases and joining in a formation known as the "Big Wing", in order to mass concentrated fire power against the enemy. To Leigh-Mallory, the objective was to shoot down the most enemy aircraft possible, regardless of whether it was before or after they hit their target, and he felt this tactic should be employed by all the Groups. This was contrary to Dowding's strategy and impractical for No. 11 Group due to the

time required to get the "Big Wing" airborne. While Dowding never prohibited the use of the "Big Wing", he did not make a move to require all of his Groups to employ the tactic, much to the dismay of Leigh-Mallory.

The conflict created by the tactics controversy was exacerbated by a tremendous clash of personalities and rivalry between Leigh-Mallory and Park. While Park was even tempered and duty bound, Leigh-Mallory was enormously ambitious and driven to out do his peers. Dowding knew of the friction between his Group Commanders long before German bombs began to fall on Britain, and yet he failed to make any efforts to mediate the disputes, before or during the Battle. Leigh-Mallory saw Dowding's lack of response to his ideas as a sure sign that he was being snubbed in favor of Park. He then took his complaints around Dowding's back to the Air Ministry and the Deputy Chief for Air Operations, ACM Sholto Douglas. Inquiries from the Air Staff about the tactics being used began to reach Dowding toward the end of the Battle, but he still refused to intervene personally in this serious conflict within his command. The controversy, left unresolved by Dowding throughout the remainder of the Battle, came to a head on October 17th when a meeting was held at the Air Ministry to discuss the matter. Heading the meeting was Douglas, and in attendance were Dowding, Leigh-Mallory, and (at Leigh-Mallory's request) Squadron Leader Douglas Bader. The outcome of the meeting was the decision that Dowding had not fully

exploited the potential of the "Big Wing" formation. A short time later, Dowding was relieved as the head of Fighter Command, and Park was relieved as No. 11 Group after only eight months in command. They were replaced by Douglas at Fighter Command and Leigh-Mallory as Commander of No. 11 Group. Thus Dowding's career ended abruptly, without fanfare, a few short weeks after he had directed the RAF to victory in what was to be the pivotal confrontation of the war.

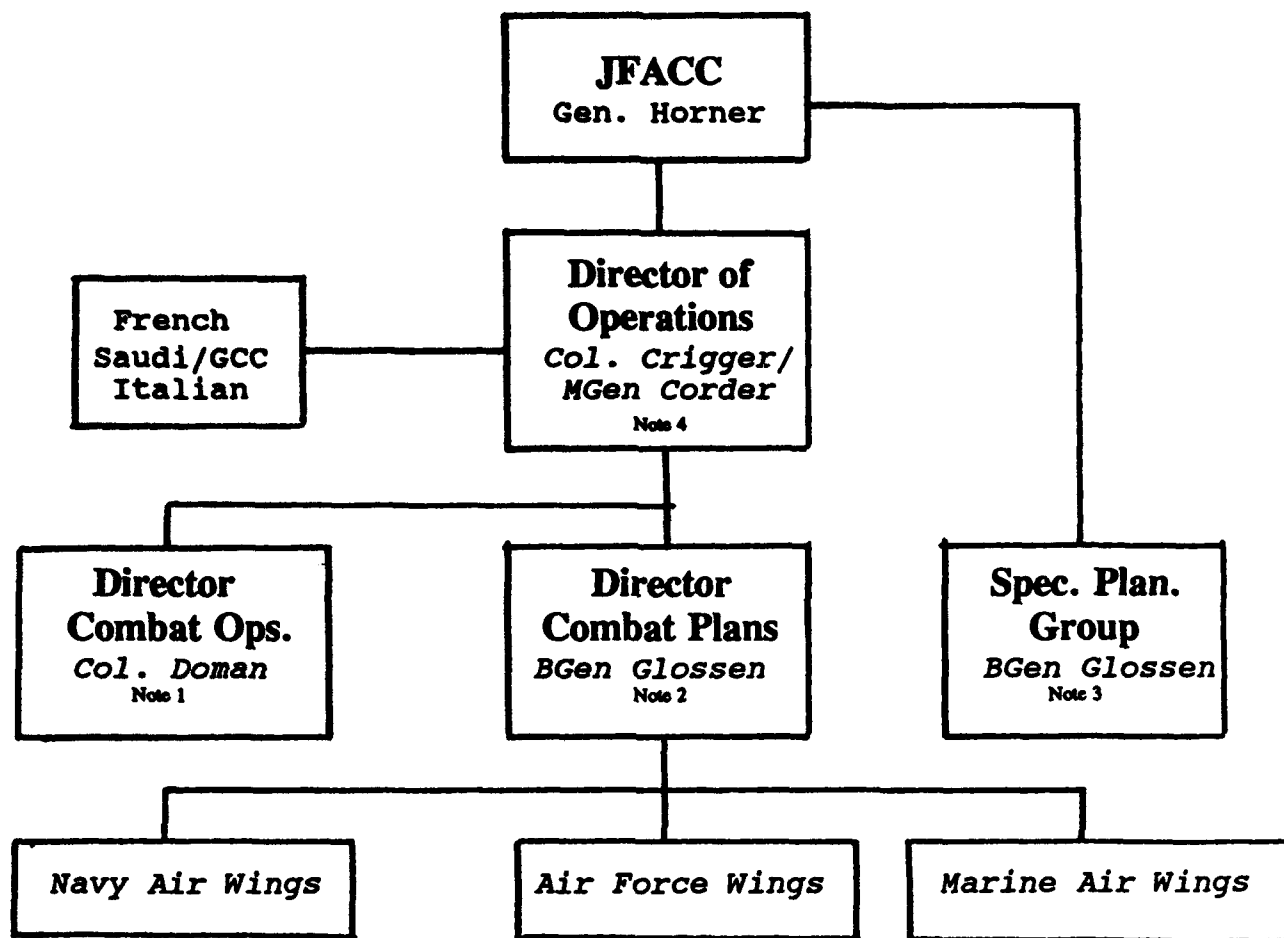
#### CHAPTER IV: DESERT STORM

Desert Storm, the operational campaign to eject invading Iraqi forces from Kuwait Operation, began with air strikes against strategic targets in Iraq during the morning darkness on 17 January 1991. The campaign was divided into four phases: Phase I, the Strategic Air Campaign; Phase II, Air Supremacy in the Kuwaiti Theater of Operations (KTO); Phase III, Battlefield Preparation; and Phase IV, the Ground Offensive Campaign. Preceding Desert Storm was a five and one-half month period of preparation and defense, Operation Desert Shield, during which combined air assets of over 2500 combat and support aircraft were mustered for use by the operational leaders. Approximately eighty percent of these assets belonged to the United States.

Operational leadership during Desert Storm was vested in the Commander-in-Chief of the U.S. Central Command (CENTCOM), General H. Norman Schwarzkopf. While Schwarzkopf retained the

overriding operational leadership responsibility, the interface between policy and tactics, he delegated nearly all of the responsibilities for the conduct of air operations to his Air Force Component Commander, General Charles A. Horner. This division of leadership proved to be tremendously beneficial as the campaign progressed. General Horner was designated the Joint Force Air Component Commander (JFACC) and given authority to develop the strategy, and control the planning and execution of the air phases, including the tasking of the Navy's Tomahawk cruise missiles. " 'There's only going to be one guy in charge of the air: Horner', the CINC had told his subordinates . . . Thus empowered as the commander of all allied air forces, Chuck Horner concentrated his planes where he thought they best supported the CINC's overall war objectives."<sup>10</sup>

**PREPARATION** With the authority of operational leader for the air campaign, Horner established a staff organization and set upon preparing his forces for war. The JFACC organization (illustrated in figure 2) consisted primarily of the staff Horner had working for him in his post as commander of Ninth Air Force, but with some important additions. Horner brought Brigadier General Buster C. Glossen to the staff and assigned him the position of Director of Combat Plans (DCP, eventually to become Director of Campaign Plans). In this capacity ". . . Glossen was anointed by Horner to be both chief



- Note 1:** Responsible for the daily execution of the Air Tasking Order (ATO).
- Note 2:** Responsible for planning and ATO production. Responsible for the planning of the defense of Saudi Arabia at the start of Desert Shield.
- Note 3:** Responsible for planning of the offensive air campaign. Produced ATO for the first three days of the war. Had authority over all targeting.
- Note 4:** Corder replaced Crigger in Nov. 1990.

**Figure 2: The JFACC Organization during Operations Desert Shield and Desert Storm<sup>11</sup>**

targeter and commander of all Air Force wings in the gulf. That investiture, together with his autocratic bearing, lent Glossen's single star the authority of three or four."<sup>12</sup> This arrangement led to difficulties from the start. Even though Glossen's rank was initially below only Horner within the JFACC organization, his actual billet was subordinate to the Director of Operations, the billet immediately below Horner and originally filled by an Air Force colonel. Glossen's arrival created friction on the staff and set the stage for conflicts within the established chain of command.

Prior to the Iraqi invasion of Kuwait, very little planning had been done at CENTCOM for such a contingency. Thus during the early stages of Desert Shield, Horner tasked his Combat Plans Directorate with planning for the defense of Saudi Arabia. Additionally Horner had been secretly charged by the CINC to develop an offensive air campaign against Iraq and the plan's existence was to be kept totally confidential. Horner brought in a small group of Air Force officers from the Pentagon to accomplish this assignment, all experts in the planning and directing of an air campaign. These officers formed a special planning group under Glossen's direction, which became known as the "Black Hole".

Schwarzkopf envisioned the offensive air campaign as the opening act of his four-phase drama. However General Glossen saw the purpose of his special planning group differently. Fifty years earlier during the Battle of Britain, the German

Luftwaffe's precise objective was to determine ". . . [w]hether a major power, with a population resolved to resist, could be subdued by air power alone . . . ."13 Glossen was determined to accomplish this same mission. This was not part of Schwarzkopf's overall strategy, but Glossen felt the CINC would alter his thinking once the campaign was underway.

**COMMUNICATION and FRICTION** An additional source of conflict was the make-up of Horner's organization. The staff working for the JFACC was not joint. It was overwhelmingly composed of Air Force officers, hence the plans for the air campaign incorporated U.S. Air Force doctrine almost exclusively. These facts caused interservice rivalries to erupt almost from the start of the operation. While Navy strike warfare revolves around the roll-back of enemy air defenses and the cornerstone of Marine air is close air support of ground forces, the first priority of Air Force doctrine is aerospace control, of which suppression of enemy air defenses is only a contributing part, and close air support is only part of a lower priority mission. (Figure 3 illustrates how Air Force missions can interrelate in the battlespace.)

The adherence to Air Force doctrine gave the other Services the impression that they were being shut out of the decision making and their inputs were being ignored. The Navy felt from the beginning of the air campaign that the Air Force purposely established enemy identification requirements beyond



# USAF MISSIONS AREA RELATIONSHIPS SIDEVIEW

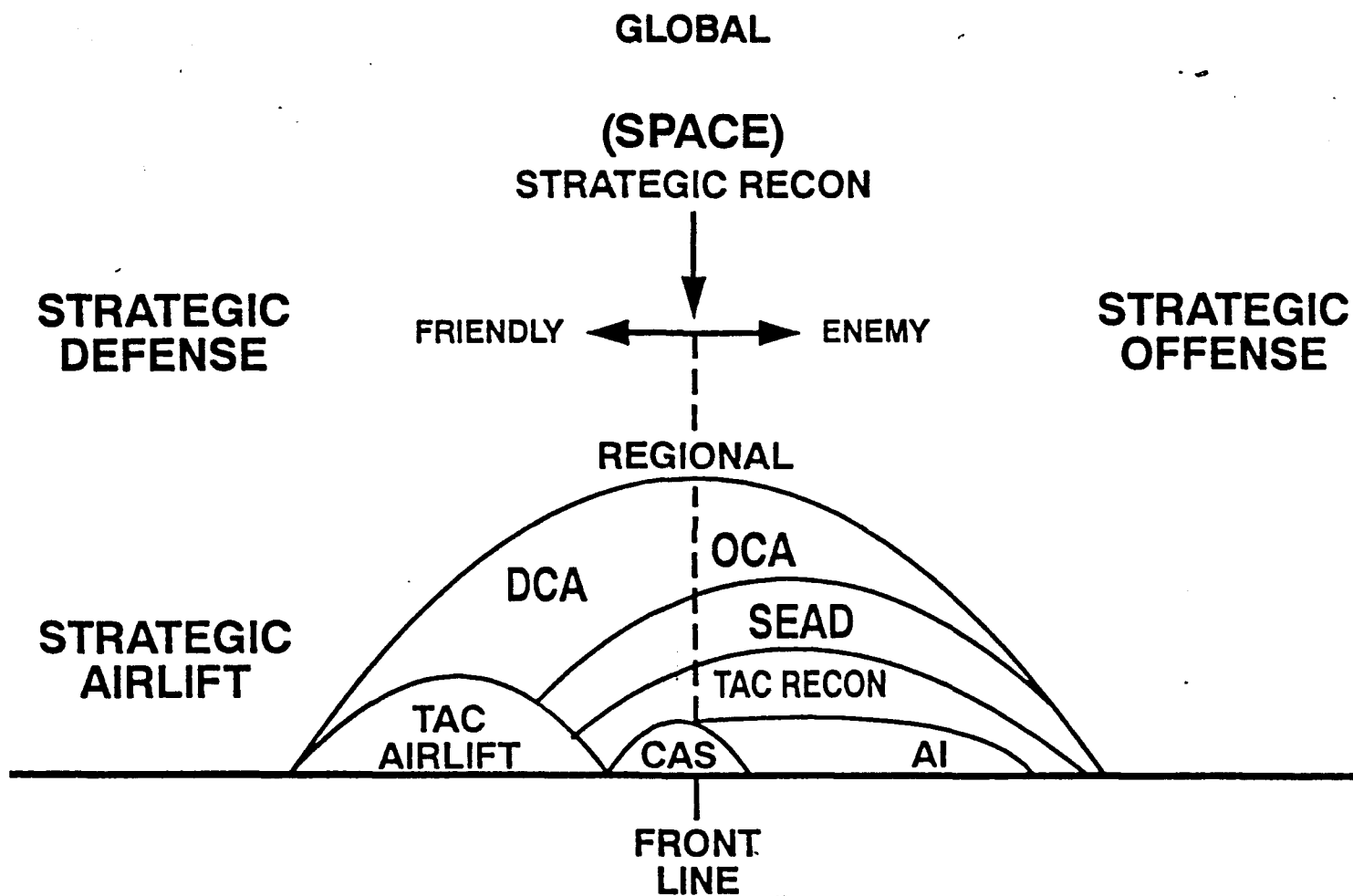


Figure 3: Air Force Mission Relationships<sup>14</sup>

the capability of the Navy's equipment in order to keep the premier aerospace control missions for themselves. As the ground campaign approached, the Army Corps Commanders felt the JFACC was ignoring the battlefield preparation they felt they needed in favor of the more glamorous strategic missions. The Marine Corps was reluctant to give its air units over to the JFACC's control for fear the Air Force would not cut them loose when the Marines needed them to support their ground movements. These fears were compounded by the recalcitrant Glossen, who made no effort to placate the other Service commanders.

Another conflict was created within Horner's organization because of the secret nature of the "Black Hole". The "Black Hole" was directed not share their plans or responsibilities with the DCP staff, therefore the two worked as separate elements and in many cases they duplicated each others efforts. Considerable friction within the JFACC organization began to develop as the staff members of the DCP started to realize the clout of the "Black Hole" and the redundancy of their efforts. General Horner finally interceded shortly before the start of the war and directed the two staffs to cooperate. This direction was the result of an exercise request submitted from the "Black Hole", which in reality was the planned ATO for the first day of the secret offensive air campaign. When the "exercise" reached the DCP for incorporation into the daily ATO, some serious flaws were

discovered, most important among them was the lack of sufficient planned inflight refueling assets. This was one instance where General Horner properly exercised his authority as a operational leader to douse a growing problem before it could have an effect on combat operations.

#### **CHAPTER V: ACM Hugh Dowding and Operational Leadership**

**STRENGTHS** Dowding's strengths as an operational leader were brought out during the preparation for the war. He was truly a leader of vision as he had the foresight to see that technology was changing air warfare at a tremendous pace. He realized the potential of radar, fought for its development, and then implemented his entire air defense doctrine around its use. His efforts in the fight to build up and modernize the RAF fighter force were also vital. Dowding's success in securing the number of fighter squadrons he felt was needed prior to the battle was remarkable in that it totally went against the established air doctrine at the time. In the post-World War I years, Germany, France, and Britain developed military strategies designed to prevent the horrors of trench warfare. While the German's chose *Blitzkrieg* and the French built the Maginot line, the British set out to develop a bomber force that could take the fight to the enemy. What suffered was the fighter defense of the home island. The fruit of Dowding's labor was the creation of a credible

fighter force and aircraft production that was able to keep pace with the combat losses throughout the Battle.

His vision extended to the battlefield as well. Dowding knew his strategy of force conservation relied on keeping the battle over England. Leigh-Mallory and the proponents of the offense were pushing to take the fight to the enemy; to fight him over the English Channel and even in the skies over France. Dowding knew action along these lines would prove disastrous. With limited assets against an enormous foe, he had to ensure as much as possible that if an airplane was lost they would have the best possible opportunity to get the pilot back safely. This would have been impossible if his men were shot down over enemy territory. The outstanding operational leadership qualities he exhibited in pre-war preparation proved to be the difference in the Battle. Dowding's efforts gave the outnumbered RAF the chance to win.

**WEAKNESSES** As exceptional as these attributes were before the Battle, the actual fighting revealed some glaring deficiencies. The "Big Wing" controversy served to highlight Dowding's greatest shortcoming as an operational leader, his failure to effectively communicate with his subordinates. Dowding never made an effort to ensure his strategy was fully understood by his subordinates, with the possible exception of Park. By taking ". . . it for granted that it was clearly understood throughout his Command . . ." <sup>15</sup>, he failed to promulgate his vision down to those who needed it.

Dowding also performed poorly as the interface between the operational and strategic levels of decision making. He was not a diplomat and he despised the political dealings that went with high military rank. His relations with the Air Staff were "[d]iabolical because . . . he was undoubtedly upset that he did not become Chief of the Air Staff when Newell was appointed to that post."<sup>16</sup> Consequently Dowding disagreed often with guidance issued from the Air Staff. Dowding did have the ear of Prime Minister Churchill, however, and tended to communicate directly with him on matters rather than keep it within the proper chain of command. Jumping the chain of command was doubtlessly an underlying reason for Dowding's quick removal after the Battle was won.

Additionally, Dowding did not direct an appropriate amount of effort to staying in touch with what was going on at the tactical level. He focused his attention almost entirely at the strategic level and remained distant from the men under his command. He had the greatest admiration for his pilots and subordinate commanders, referring to them as "his chicks", but he never conveyed this to them. "During the Battle of Britain I was farther away from the fighting squadrons, and too desperately busy to do much visiting . . ."<sup>17</sup> Dowding would say in retrospect. Consequently, although Dowding was admired and respected by the aviators almost to a man, to them he seemed aloof and out of touch with modern air warfare.

The result was a lack of communication up and down the chain of command. Had he made more of an effort to communicate his strategy to all of his subordinates, had he taken the time visit the squadrons and make himself available, the problems may never have materialized. Thus Dowding prepared the force but did not lead the force.

#### **CHAPTER VI: GENERAL HORNER AND OPERATIONAL LEADERSHIP**

For General Horner, the operational leadership test took on a different form. With the Cold War just concluded, the United States Armed Forces were at an extremely high state of readiness in both equipment and training. Once the President was committed to take action, the challenge for Horner and Schwarzkopf was getting available forces in place. The difficulties of the deployment and sustainment for Desert Storm is a matter for separate discussions or volumes. Horner's other preparation challenge emanated from having to deal with two separate, and for the most part competing, planning organizations. Although he waited until practically the last minute, General Horner did decisively act to break down the barrier between the "Black Hole" and the DCP planners, thus restoring unity of effort within his staff organization.

**WEAKNESSES** Like Dowding before him, Horner's greatest weakness in operational leadership was his ineffectiveness in ensuring his subordinate commanders fully understood and

followed strategic guidelines of the operational leaders. His failure to reign in Glossen and his ambition to win the war solely by air power and Air Force Doctrine resulted in friction between the JFACC and the other Service Component Commanders.

**STRENGTHS** The resolution of this situation proved one of the values of dividing operational leadership responsibilities. Horner's technique for solving a problem of this nature was to leave it alone and let the most determined of the belligerents prevail. In this instance, with other services involved and unity of effort at stake, this *laisse faire* style of leadership was inadequate. Definitive action on the part of the operational leadership was needed. To the forefront stepped Schwarzkopf. By being kept informed of the problems, and then prodded by his other component commanders to take action, the CINC put an end to the disputes. He called on the Navy to solve its own problems, then dealt with the battlefield preparation conflict by requiring his personal approval for any targets that did not support the requests of the ground commanders during the Battlefield Preparation phase. Although these decisions were not universally popular, the operational leadership regained control of the decision making and the professionals in the command responded.

Horner was spared the problems of interfacing with the political side of decision making by Schwarzkopf. The CINC was the buffer between Horner's level of operational

leadership and the National Command Authority. In this case the team concept of operational leadership enabled Horner to concentrate on leading the air campaign. Even without the interface burden occupying his energies, Horner still allowed some problem situations to mature right to the breaking point. Had it not been for the additional step Schwarzkopf provided in the ladder of operational leadership, Horner may have suffered the same fate as Dowding.

## CHAPTER VII: Comparisons and Conclusions

**COMPARISONS** The differences in the type of warfare fought by the winning sides, and the advances in technology were tactics are acute, and yet the operational leadership challenges that faced were remarkably the same. For Dowding and the RAF, the Battle of Britain was a defensive air war, fought in the skies above friendly soil, against an enemy that significantly outnumbered them and constantly had the initiative. The opposite was true of Desert Storm. The Coalition air forces were far superior in both numbers and quality of aircraft, they fought a totally offensive campaign over hostile territory in which the Coalition leaders chose when to initiate the attack. The initiative was never lost during the Gulf War.

The vital aspect of operational leadership where both leaders excelled was in the material and organizational preparation of their commands. Each operational leader worked



hand-in-hand with the political and strategic leadership to gather all the available resources required to implement his military strategy. Additionally, both Dowding and Horner put into place staff organizations and command and control mechanisms that fully complimented their strategic vision.

Another significant parallel found in the conflicts was the incorporation of a new aspect of warfare. The Battle of Britain saw a new doctrine for air defense: the implementation of radar and control of aircraft from the ground. During Desert Storm, all Coalition air forces were put under the command of the JFACC. While the JFACC concept had been in place for several years, ". . . this was the first time it was used in a major conflict."<sup>18</sup> With these innovations came growing pains that tended to aggravate other demands on the operational leaders.

The aspect of operational leadership where Dowding and Horner each showed significant weakness was in their communication with various elements in the chain of command. Dowding failed to adequately convey his new doctrine of air defense to all of his group commanders, which resulted in a break down in the unity of Fighter Command and Leigh-Mallory usurping the chain of command. Horner failed to communicate to Schwarzkopf conflicts he knew existed between Glessen and the air commanders of the other Services regarding differences in doctrine and targeting priorities. Consequently

Schwarzkopf was required to intervene in a matter that was Horner's responsibility.

**CONCLUSIONS** The aspects of operational leadership that challenge the operational leader are not independent. Each one influences the effectiveness of the others. Along with the organization of forces, establishment of command and control mechanisms, and the determination of combat doctrine, interface between commanders and subordinates needs to be a part of the operational leader's command preparation. The early exchange of ideas, and the ironing out of differences within the command structure before the start of the operation, may alleviate the potential for gaps in communication. Neither Dowding nor Horner fully made this a part of their preparations even though they had sufficient time to do so.

Strategy may be better supported by establishing a sort of communication feedback mechanism within the operational command structure. An avenue through which subordinates can relay ideas and opinions on tactical matters to the operational leaders and in turn receive feedback from the commander. This would give subordinates a sense of involvement rather than feeling forced to adhere to operational dogma. General Horner did a much better job at this than did Dowding. The JFACC sent teams to all the tactical units, and Horner met with all the tactical commanders in Saudi Arabia, prior to the start of the air

campaign to go over the offensive plans. The tactical commanders felt they had a good understanding of the strategy before the start of the fighting, but these communications did not totally belay the frustrations caused by the differences in doctrine.<sup>19</sup> Thus the operational leaders are left with certain dilemmas: What do my subordinates really need to know? Will the withholding of information create problems that will effect the outcome of the operations? If controversy or friction in the command does occur, at what point does he actively intervene? These are difficult questions, but the answers may come a bit easier if the operational leader makes the effort to stay in tune with his subordinates at all levels of his command.

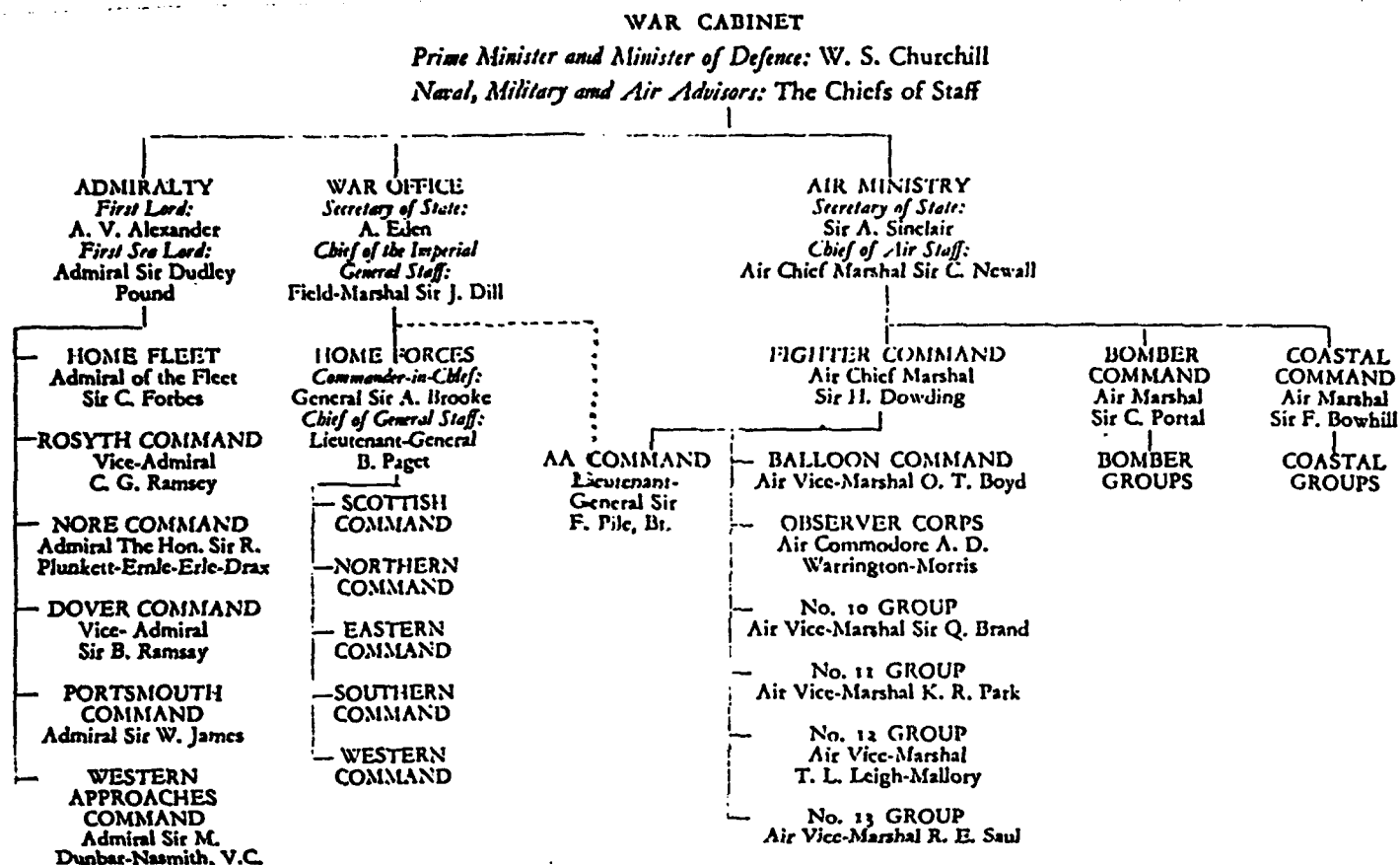
Personality conflicts within an operational command have been, and most likely will continue to be, a constant test for the operational leader. Their drain on the effectiveness of operational leadership might be minimized by a diligent commander applying proper communication and interface within the command.

As the case studies illustrate, victory does not validate the excellence of the operational leader. It is likely, in the face of significantly smaller force structures, the operational leader will have to tailor his military strategy to the forces made available rather than expecting to get all he requests. This will place a premium on the operational commander's mastery of operational leadership. This can be a

difficult, and often ominous task, but not beyond the capabilities or training of our military leaders.

# APPENDIX: THE ORGANIZATION OF THE ROYAL AIR FORCE AND FIGHTER COMMAND, 1940

## British Higher Organization and Chain of Command for Home Defense, August 1940<sup>20</sup>



# Fighter Command Order of Battle 7 September 1940<sup>21</sup>

## HQ Bentley Priory, Stannore (Air Chief Marshal Sir Hugh Dowding)

### NO. 10 GROUP, BOX, WILTS. (Air Vice-Marshal Sir Quintin Brand)

Squadron	Aircraft	Station
	<i>Pembrey Sector</i>	
92	Spitfire	Pembrey
	<i>Filton Sector</i>	
87	Hurricane	Emmer
213	Hurricane	Emmer
	<i>St Eval Sector</i>	
234	Spitfire	St Eval
247 (one flight)	Gladiator	Roborough
	<i>Middle Wallop Sector</i>	
238	Hurricane	Middle Wallop
609 (West Riding)	Spitfire	Middle Wallop
604 (County of Middlesex)	Blenheim	Middle Wallop
152	Spitfire	Warmwell

### NO. 11 GROUP, UXBRIDGE (Air Vice-Marshal K. R. Park)

Squadron	Aircraft	Station
	<i>Tangmere Sector</i>	
43	Hurricane	Tangmere
601 (County of London)	Hurricane	Tangmere
145	Hurricane	Westhampton
	<i>Kenley Sector</i>	
615	Hurricane	Kenley
64	Spitfire	Kenley
111	Hurricane	Croydon
	<i>Biggin Hill Sector</i>	
32	Hurricane	Biggin Hill
610 (County of Chester)	Spitfire	Biggin Hill
501 (County of Gloucester)	Hurricane	Gravesend
600 (City of London)	Blenheim	Manston
	<i>Hornchurch Sector</i>	
54	Spitfire	Hornchurch
65	Spitfire	Hornchurch
74	Spitfire	Hornchurch
41	Spitfire	Hornchurch
	<i>Northolt Sector</i>	
1	Hurricane	Northolt
257	Hurricane	Northolt
	<i>North Weald Sector</i>	
151	Hurricane	North Weald
56	Hurricane	Rochford
25	Blenheim	Martlesham
	<i>Debden Sector</i>	
17	Hurricane	Debden
85	Hurricane	Martlesham

### NO. 12 GROUP, WATNALL, NOTTS. (Air Vice-Marshal T. L. Leigh-Mallory)

Squadron	Aircraft	Station
	<i>Duxford Sector</i>	
19	Spitfire	Duxford
	<i>Coltishall Sector</i>	
242	Hurricane	Coltishall
66	Spitfire	Coltishall
	<i>Wittering Sector</i>	
229	Hurricane	Wittering
266	Spitfire	Wittering
23	Blenheim	Colly Weston
	<i>Digby Sector</i>	
46	Hurricane	Digby
611 (West Lancashire)	Spitfire	Digby
29	Blenheim	Digby
	<i>Kirton-in-Lindsey Sector</i>	
222	Spitfire	Kirton-in-Lindsey
264	Defiant	Kirton-in-Lindsey and Ringway
	<i>Church Fenton Sector</i>	
73	Hurricane	Church Fenton
249	Hurricane	Church Fenton
616 (South Yorkshire)	Spitfire	Leconfield

### NO. 13 GROUP, NEWCASTLE UPON TYNE (Air Vice-Marshal R. E. Saul)

Squadron	Aircraft	Station
	<i>Catterick Sector</i>	
219	Blenheim	Catterick
	<i>Usworth Sector</i>	
607	Hurricane	Usworth
72	Spitfire	Acklington
79	Spitfire	Acklington
	<i>Turnhouse Sector</i>	
232 (one flight)	Hurricane	Turnhouse
253	Hurricane	Turnhouse
605 (County of Warwick)	Hurricane	Drem
141	Defiant	Prestwick
	<i>Dyce Sector</i>	
603 (City of Edinburgh)	Spitfire	Dyce and Montrose
	<i>Wick Sector</i>	
3	Hurricane	Wick
504 (County of Nottingham)	Hurricane	Castletown
232 (one flight)	Hurricane	Sumburgh
	<i>Aldergrove Sector</i>	
245	Hurricane	Aldergrove

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